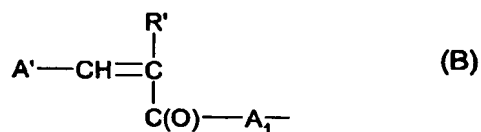
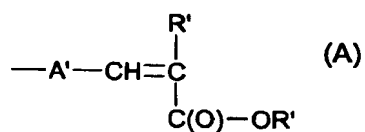


Claims:

1. Composition comprising

- a) at least one ethylenically unsaturated monomer to which a photochemically isomerizable or dimerizable molecule is covalently bonded,
- b) at least one ethylenically unsaturated monomer to which a sensitizer is covalently bonded, and
- c) optionally other ethylenically unsaturated comonomers.

2. Composition according to Claim 1, characterized in that the photopolymerizable group corresponds to the formulae A and B



where

R' is hydrogen or C₁-C₄-alkyl,

A' is an optionally substituted mono- or divalent aromatic radical or an optionally substituted mono- or divalent heteroaromatic radical, and

A₁ is a bridging group.

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3. Composition according to Claim 1, characterized in that the monomers (a) correspond to the formula I or to the formula Ia



where

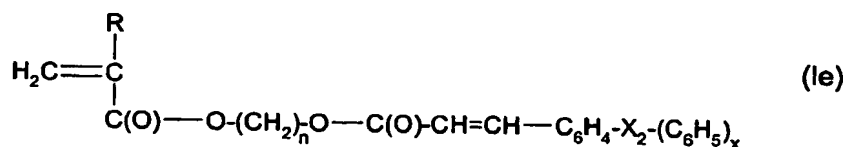
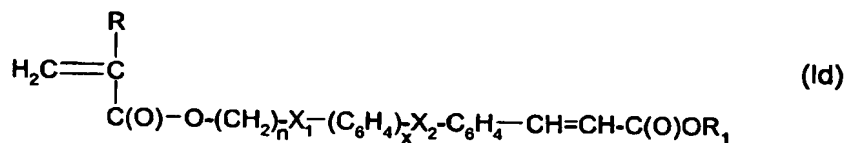
R is H or C₁-C₈-alkyl,

A is a bridging group,

S₁ is an optionally substituted divalent and S₂ an optionally substituted monovalent aromatic or heteroaromatic radical, and

Z₁ is a monovalent and Z₂ a divalent radical of a molecule which isomerizes or dimerizes photochemically.

4. Composition according to Claim 1, characterized in that the monomers (a) correspond to the formula Id or to the formula Ie



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where

R is methyl,

n is a number from 2 to 20, preferably from 4 to 14,

R₁ is C₁-C₄-alkyl and preferably methyl,

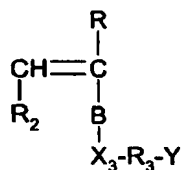
x is 0 or 1,

X₂ is a direct bond, -O-, -S-, -CO-, -OC(O)- or -C(O)O-, and the C₆H₄ and C₆H₅ groups are each independently unsubstituted or substituted by 1 to 3 C₁-C₄-alkyl and/or C₁-C₄-alkoxy, preferably methoxy.

5. Composition according to Claim 1, characterized in that the monomers b) are selected from the group of acrylates, methacrylates, acrylamides, methacrylamides, maleic monoesters, and allyl or methallyl or crotonyl alcohol, to which a sensitizer is covalently bonded directly or via a bridging group in the ester or amide group or to the alcohol group.

6. Composition according to Claim 1, characterized in that the sensitizers are selected from the group of 2-hydroxyketones, coumarins, ketocoumarins, acetophenones, benzophenones, anthraquinones, xanthenes, thioxanthenes and acetophenone ketals.

7. Composition according to Claim 1, characterized in that the monomers b) correspond to the formula II



(II)

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where

R is H or C₁-C₄-alkyl,

R₂ is H or -COOR₇,

R₃ is a direct bond or a bivalent bridging group,

B is methylene or -C(O)-,

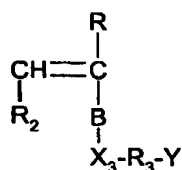
Y is the monovalent radical of a sensitizer,

X₃ is -O-, -NH- or -N(C₁-C₄-alkyl)-,

X₃ is -O- when B is methylene, and

R₇ is H, C₁-C₂₀-alkyl, C₃-C₁₂-cycloalkyl or phenyl-C₁-C₆-alkyl.

8. Composition according to Claim 1, characterized in that the monomers b) correspond to the formula IIa



(IIa)

where

R is H or methyl,

R₂ is H,

B is -C(O)-,

Y is the monovalent radical of a sensitizer,

X₃ is -O-, and

R₃ is a radical of the formula -(R₄)_r-X₄-(R₅)_s-

where

R₄ is C₁-C₂₀-alkylene, polyoxaethylene or polyoxapropylene having from 2 to 10 oxaalkylene units, C₅- or C₆-cycloalkylene, -cyclopentyl-C_nH_{2n}- and -cyclohexyl-C_nH_{2n}- where n is 1 or 2, cyclopentyl-(C_nH_{2n})₂ and cyclohexyl-(C_nH_{2n})₂ where n is 1 or 2, phenylene, benzylene, phenylethylene or xylylene,

R₅ is a direct bond or C₁-C₄-alkylene,

X₄ is a radical selected from the group of -O-, -S-, -NR₆-, -C(O)-O-, -O-C(O)-, -O-C(O)-O-,

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-SO₂-O-, -O-SO₂-, -O-SO₂-O-, -NR₆-C(O)-, -C(O)-NR₆-, -NR₆-C(O)-O-, -O-C(O)-NR₆-, -NR₆-C(O)-NR₆-, -NR₆-SO₂-, -SO₂-NR₆-, -NR₆-SO₂-O-, -O-SO₂-NR₆- or -NR₆-SO₂-NR₆, and r is the number 1 and s is 0 or the number 1.

9. Composition according to Claim 1, characterized in that monomers (c) are selected from the group of ethene, propene, butene, pentene, styrene, vinyl chloride, vinylidene chloride, acrylonitrile, (meth)acrylonitrile, (meth)acrylamide, N-alkylated or N-hydroxyalkylated (meth)acrylamides, alkyl (meth)acrylates and hydroxyalkyl (meth)acrylates having 1 to 20 carbon atoms in the ester group, vinyl and allyl esters and vinyl and allyl ethers having 1 to 20 carbon atoms in the ester or ether groups, alkyl (meth)acrylates or vinyl and allyl ethers of polyoxaalkylene diols.

10. Composite material composed of a substrate and a thin layer of a polymerizable composition or of a copolymer of this composition, comprising

- a) at least one ethylenically unsaturated monomer to which a photochemically isomerizable or dimerizable molecule is covalently bonded,
- b) at least one ethylenically unsaturated monomer to which a sensitizer is covalently bonded, and
- c) optionally other ethylenically unsaturated comonomers.

11. Composition comprising a photocrosslinked layer of the composition according to Claim 1 and a liquid-crystalline layer on said photocrosslinked layer.

12. Use of the a composition according to Claim 1 for producing alignment layers on a substrate material.